QI Study Outline

Date: 3/11/2008

Laboratory: Division of Analytical Chemistry, Forensic Drug Laboratory

A. Quality topic

The Forensic Drug Laboratory will examine the primary factors contributing to balance tolerance and write an SOP for monthly balance QC.

B. Review or monitoring activities

Error causing factors effecting balance tolerance will be reviewed and balance QC terms will be defined. All balance vendors will be contacted to determine if error assessment is uniformly measured in a similar fashion for their equipment.

C. Findings and assessments summary

Current balance tolerance does not account for 2 sigma contributions from repeatability error and linearity error. Mettler's R&D division suggests tolerance be stated as 2 sigma of repeatability for weights under 10% capacity and above this as 1 sigma of repeatabiltiy and 1 sigma of linearity. Error from the test weights will not be a contributing factor as ultraclass weights will be employed for weight measurements. By accurately stating tolerance, QC balance checks can be performed quicker and with less frequent recalibrations.

D. Recommendations or corrective action(s)

QC balance forms will need to be restated to reflect the above findings. Caley and Whitmore should be notified about restating tolerance on the certification tags placed on each balance during the yearly check.

E. Implementation of changes

F. Follow-up and outcomes

Laboratory Division Director	/	Date
Quality Assurance Program Director	/	Date
Laboratory Director	/	Date